

west virginia department of environmental protection

Division of Air Quality 601 57th Street, SE Charleston, WV 25304-2345

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Jim Justice, Governor Austin Caperton, Cabinet Secretary www.dep.wv.gov

MEMORANDUM

To:

Beverly McKeone

From:

William T. Rothwell II, P.E.

Date:

April 21, 2017

Subject:

Class I Administrative Update of R13-2615B (R13-2615C) for Equitable

Production Company – Grant Station (045-00122)

On July 1, 2016, the DAQ received a request from Equitable Production Company (Equitable) to update Permit R13-2615B. This request is for the removal of two existing compressor engines (S004, S005), the removal of storage tanks (T5, T8, T9, & T10), and to revise capacities of the remaining seven storage tanks.

The proposed changes will not result in a decrease in permitted emissions.

Changes to the permit are limited to Sections 1.0, 5.0, and 7.0 as shown below. Sections 5.0 and 7.0 have been removed from the permit.

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
S001	S001	NATCO Glycol Dehydration Unit Still Vent	2000	10 MMscf/da y	NA
S002	S002	NATCO Glycol Dehydration Unit Reboiler	2000	0.25 mmBtu/hr	NA
S003	S003	De-ethanizer / Indirect Heater	2000	0.075 mmBtu/hr	NA
S00 4	S004	Caterpillar G3412C LE natural gas compressor engine	2008	673 hp	NA
S005	\$005	Caterpillar G3412C LE natural gas compressor engine	2008	673 hp	NA

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Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T1	T1	Pipeline Fluids Storage Tank	2008	2,000 gal	NA
T2	T2	Engine Lube Oil Storage Tank	2008	2,000 gal	NA
T3	T3	Screw Compressor Oil Storage Tank	2008	1,000 gal	NA
T4	T4	Used Oil Tank	2008	2,000 gal	NA
T5	T5	Glycol Storage Tank	NA	1,000 gal	NA
Т6	Т6	Dehy Condensate Storage Tank	NA	4,000 gal	NA
T7	T7	Compressor Oil Storage Tank	NA	6,500 gal	NA
T8	T8	Empty Storage Tank	NA	4,200 gal	NA
T9	T9	Empty Storage Tank	NA	4,200 gal	NA
T10	T10	Methanol Storage Tank	NA	1,000 gal	NA
T11	T11	Used Oil Storage Tank	NA	4,200 gal	NA

5.0. Source-Specific Requirements (S004, S005)

- 5.1. Limitations and Standards
- 5.1.1. The quantity of natural gas that shall be consumed in the 637 hp natural gas fired reciprocating engine, Caterpillar G3412C LE (S004) shall not exceed 8,068 cubic feet per hour or 70.67 mmcf/yr.
- 5.1.2. Maximum emissions from the 637 hp natural gas fired reciprocating engine, Caterpillar G3412C LE (S004) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	2.81	12.30
Carbon Monoxide	2.38	10.40
Volatile Organic Compounds	0.35	1.91

- 5.1.3. The quantity of natural gas that shall be consumed in the 637 hp natural gas fired reciprocating engine, Caterpillar G3412C LE (S005) shall not exceed 8,068 cubic feet per hour or 70.67 mmcf/yr.
- 5.1.4. Maximum emissions from the 637 hp natural gas fired reciprocating engine, Caterpillar G3412C LE (S005) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	2.81	12.30
Carbon Monoxide	2.38	10.40
Volatile Organic Compounds	0.35	1.91

5.2. Recordkeeping Requirements

5.2.1. To demonstrate compliance with section 5.1.1-5.1.4, the permittee shall maintain records of the amount of natural gas consumed in S004 and S005. Said records shall be maintained on site for a period of five (5) years. Said records shall be made available to the Director of the Division of Air Quality of his/her duly authorized representative upon request and shall be certified by a responsible official upon submittal.

7.0. Source-Specific Requirements (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (S004, S005))

7.1. Limitations and Standards

- 7.1.1. The provisions of this subpart are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
 - a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:
 - 1. On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
 - 2. on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;
 - 3. on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
 - 4. on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

- b. Owners and operators of stationary SI-ICE that commence modification or reconstruction after June 12, 2006.
 [40CFR§60.4230a]
- 7.1.2. The two (2) 637 hp natural gas fired reciprocating engines, Caterpillar G3412C LE (S004 and S005), must be certified engines according to the procedures specified in 40CFR60 Subpart JJJJ.
- 7.1.3. The two (2) 637 hp natural gas fired reciprocating engines, Caterpillar G3412C LE (S004 and S005), must be maintained according to the manufacturer's emission related written instructions. The permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. [40CFR§60.4243(a)(1)]

7.2. Reporting Requirements

- 7.2.1. The permittee must keep records of the following information:
- 1. All notifications submitted to comply with 40CFR60 Subpart JJJJ and all documentation supporting any notification.
- 2. Maintenance conducted on the engine.
- 3. Documentation from the manufacturer that the certified engines (S004 and S005) meet the emission standards and information as required in 40CFR parts 90 and 1048.

[40CFR§60.4245(a)]

- 5.1.2. Emissions to the atmosphere from the ethylene oxide sterilizer stack shall not exceed 0.5 pounds per hour, 2.4 pounds per day, and 0.25 tons per year of ethylene oxide emissions.
- 5.1.3. No more than 3.6 ounces per bottle per 16 hours shall be processed in each of the two ethylene oxide sterilizers. One 3.52 Ounce cartridge contains 100 grams of ethylene oxide.
- 5.2.4. For each month, the permittee shall record the amount of ethylene oxide used at the facility. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

The proposed changes meet the criteria of Class I Administrative Update under 45 CSR §13-4.2.a. Equitable included a complete application in their administrative update request. Therefore, the writer recommends to the Director to grant Equitable their request by issuing Permit R13-2615C for their Grant Station located in Logan, WV.